

Notice of Allowability

Application No.

09/993,570

Examiner

Huyen X. Vo

Applicant(s)

KUSHIDA ET AL.

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 1/31/2006.
2. ☒ The allowed claim(s) is/are 1-11 (original 43, 45-48, 51-52, 54, 57-58, and 60).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date 12/5/2005
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with applicant's representative, Douglas W. Pinsky, on 3/31/2006. The application has been amended as follows:

Claims 49, 55, and 61 have been cancelled.

Claims 43, 45-48, 51-52, 54, 57-58 and 60 have been amended as follows:

45. In a client-server speech recognition system, wherein the server has holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of input form identifying information and each of the plurality of kinds of recognition dictionaries, an information processing apparatus acting as a client comprising:

display control means for controlling the display of a speech input window comprising plural input forms;

determining means for determining from among the displayed plural input forms an input form to which speech information is input as a target speech input;

first transmission means for transmitting to the server input form identifying information indicating the input form determined when said determining means determines the input form;

storing means for storing a user dictionary which holds target recognition words and input form identifying information in association with each other;

speech receiving means for receiving the speech information inputted by a speech input module, using a displayed input form;

second transmission means for transmitting the user dictionary and the speech information to the server; and

inputting means for inputting a speech recognition result received from the server to the input form to which the speech information is determined to be input by said determining means,

wherein the server sets one or more recognition dictionaries corresponding to the received input form identifying information transmitted by said first transmission means from said holding means by referring to the table, and recognizes the received speech information transmitted by said second transmission means using (i) the target recognition words of the received user dictionary transmitted by said second transmission means associated with the input form to which the speech is determined by said determining means to have been input that is identified by the received input form identifying information and (ii) the one or more recognition dictionaries, and transmits the speech recognition result to the client.

46. In a client-server speech recognition system for recognizing, by a server, speech input at a client for inputting information to an input form, the client having display control means for controlling the display of a speech input window comprising plural input forms, determining means for determining from among the displayed plural input forms an input form to which speech information is input as a target speech input, and transmission means for transmitting input form identifying information indicating the input form determined when said determining means determines the input form, an information processing apparatus acting as the server comprising:

holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of input form identifying information and each of the plurality of kinds of recognition dictionaries;

first receiving means for receiving the input form identifying information transmitted by said transmission means;

setting means for setting one or more recognition dictionaries corresponding to the received input form identifying information from said holding means by referring to the table;

second receiving means for receiving from the client speech information and a user dictionary that holds target recognition words and input form identifying information in association with each other; and

speech recognition means for recognizing speech information using (i) the target recognition words of the user dictionary associated with the input form to which the speech inputted by the client is inputted as identified by the received input form

identifying information and (ii) one or more recognition dictionaries set by the setting means,

wherein the client inputs a speech recognition result received from the server to the input form to which the speech information is determined to be input by said determining means.

47. A client-server speech recognition system comprising:

a client comprising:

display control means for controlling the displaying of a speech input window comprising plural input forms;

determining means for determining from among the displayed plural input forms an input form to which speech information is input as a target speech input;

first transmission means for transmitting input form identifying information indicating the input form determined when said determining means determines the input form;

speech receiving means for receiving the speech information inputted by a speech input module;

second transmission means for transmitting (i) a user dictionary that holds target recognition words and input form identifying information in association with each other and (ii) the speech information to the server; and

inputting means for inputting a speech recognition result received from the server to the input form to which the speech information is determined to be input by said determining means; and

a server comprising:

holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of the input form identifying information and each of the plurality of kinds of recognition dictionaries;

first receiving means for receiving the input form identifying information;

setting means for setting one or more recognition dictionaries corresponding to the received input form identifying information from said holding means by referring to the table;

second receiving means for receiving the user dictionary and the speech information;

speech recognition means for recognizing the speech information using (i) the target recognition words of the user dictionary associated with the input form to which speech is determined by said determining means to have been input that is identified by the received input form identifying information and (ii) the one or more recognition dictionaries set by the setting means; and

third transmission means for transmitting the speech recognition result of said speech recognition means to the client.

48. A client-server speech recognition comprising:

a client comprising:

display control means for controlling the displaying of a speech input window comprising plural input forms;

determining means for determining from among the displayed plural input forms an input form to which speech information is input as a target speech input;

first transmission means for transmitting input form identifying information indicating the input form determined when said determining means determines the input form;

speech receiving means for receiving the speech information inputted by a speech input module;

second transmission means for transmitting (i) a user dictionary that holds target recognition words and input form identifying information in association with each other and (ii) the speech information to the server; and

inputting means for inputting a speech recognition result received from the server to the input form to which the speech information is determined to be input by said determining means; and

a server comprising:

holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of the input form identifying information and each of the plurality of kinds of recognition dictionaries;

first receiving means for receiving the input form identifying information;

setting means for setting one or more recognition dictionaries corresponding to the received input form identifying information from said holding means by referring to the table;

second receiving means for receiving the user dictionary and the speech information;

speech recognition means for recognizing the speech information using (i) the target recognition words of the user dictionary associated with the input form to which speech is determined by said determining means to have been input that is identified by the received input form identifying information and (ii) the one or more recognition dictionaries set by the setting means; and

third transmission means for transmitting a speech recognition result of said speech recognition means to the client.

51. In a client-server speech recognition system, wherein the server has holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of input form identifying information and each of the plurality of kinds of recognition dictionaries, a method of controlling an information processing apparatus acting as a client comprising:

a display control step of controlling the displaying of a speech input window comprising plural input forms;

a determining step of determining from among the displayed plural input forms an input form to which speech information is input as a target speech;

a first transmission step of transmitting to the server input form identifying information indicating the input form determined in said determining step when the input form is determined;

a speech receiving step of receiving the speech information inputted by a speech input module;

a second transmission step of transmitting a user dictionary which holds target recognition words and input form identifying information in association with each other, and the speech information, to the server; and

an inputting step of inputting a speech recognition result received from the server to the input form to which the speech information is determined to be input in said determining step,

wherein the server sets one or more recognition dictionaries corresponding to the received input form identifying information transmitted in said first transmission step from said holding means by referring to the table, and recognizes the received speech information transmitted in said second transmission step using (i) the target recognition words of the received user dictionary transmitted in said second transmission step associated with the input form to which the speech is determined in said determining step to have been input that is identified by the received input form identifying information and (ii) the one or more recognition dictionaries, and transmits the speech recognition result to the client.

52. In a client-server speech recognition system for recognizing, by a server, speech input at a client for inputting information to an input form, the client having display control means for controlling the display of a speech input window comprising plural input forms, determining means for determining from among the displayed plural input forms an input form to which speech information is input as a target speech input, and transmission means for transmitting input form identifying information indicating the input form determined when said determining means determines the input form, a method of controlling an information processing apparatus acting as the server comprising:

- a first receiving step of receiving input form identifying information transmitted by said transmission means;

- a setting step of setting one or more recognition dictionaries corresponding to the received input form identifying information from a holding means that holds a plurality of kinds of recognition dictionaries by referring to a table managing a correspondence of the input form identifying information and each of the plurality of kinds of recognition dictionaries;

- a second receiving step of receiving from the client a user dictionary and speech information, the user dictionary holding target recognition words and input form identifying information in association with each other; and

- a speech recognition step of recognizing the speech information using (i) the target recognition words of the user dictionary associated with the input form to which

the speech information is input, identified by the received input form identifying information and (ii) one or more recognition dictionaries set in said setting step,

wherein the client inputs a speech recognition result received from the server to the input form to which the speech information is determined to be input by said determining means.

54. In a client-server speech recognition system, wherein the server has holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of input form identifying information and each of the plurality of kinds of recognition dictionaries, a method of performing speech recognition comprising:

at the client side:

a display control step of controlling the displaying of a speech input window comprising plural input forms;

a determining step of determining from among the displayed plural input forms an input form to which speech information is input as a target speech;

a first transmission step of transmitting input form identifying information indicating the input form determined when said determining step determines the input form;

a speech receiving step of receiving the speech information inputted by a speech input module, using an input form;

a second transmission step of transmitting (i) a user dictionary that holds target recognition words and input form identifying information in association with each other and (ii) the speech information to the server; and

an inputting step of inputting a speech recognition result received from the server to the input form to which the speech information is determined to be input in said determining step; and

at the server side:

a first receiving step of receiving the input form identifying information;

a setting step of setting one or more recognition dictionaries corresponding to the received input form identifying information from said holding means by referring to the table;

a second receiving step of receiving the user dictionary and the speech information;

a speech recognition step of recognizing the speech information using (i) the target recognition words of the user dictionary associated with the input form to which speech is determined in said determining step to have been input that is identified by the received input form identifying information and (ii) the one or more recognition dictionaries set by the setting means; and

a third transmission step of transmitting a speech recognition result of said speech recognition step to the client.

57. In a client-server speech recognition system, wherein the server has holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of input form identifying information and each of the plurality of kinds of recognition dictionaries, a computer readable memory that stores program code of control of an information processing apparatus acting as a client comprising:

- program code of a display control step of controlling the displaying of a speech input window comprising plural input forms;

- program code of a determining step of determining from among the displayed plural input forms an input form to which speech information is input as a target speech;

- program code of a first transmission step of transmitting to the server input form identifying information indicating the input form determined in the determining step when the input form is determined;

- program code of a speech receiving step of receiving the speech information inputted by a speech input module, using an input form;

- program code of a second transmission step of transmitting a user dictionary which holds target recognition words and input form identifying information in association with each other, and the speech information, to the server; and

- program code of an inputting step of inputting a speech recognition result received from the server to the input form to which the speech information is determined to be input in the determining step,

- wherein the server sets one or more recognition dictionaries corresponding to the received input form identifying information transmitted in said first transmission step

from said holding means by referring to the table, and recognizes the received speech information transmitted in said second transmission step using (i) the target recognition words of the received user dictionary transmitted in said second transmission step associated with the input form to which the speech is determined in said determining step to have been input that is identified by the received input form identifying information and (ii) the one or more recognition dictionaries, and transmits the speech recognition result to the client.

58. In a client-server speech recognition system for recognizing, by a server, speech input at a client for inputting information to an input form, the client having display control means for controlling the display of a speech input window comprising plural input forms, determining means for determining from among the displayed plural input forms an input form to which speech information is input as a target speech input, and transmission means for transmitting input form identifying information indicating the input form determined when said determining means determines the input form, a computer readable memory that stores program code of control of an information processing apparatus acting as the server comprising:

program code of a first receiving step of receiving input form identifying information transmitted by said transmission means;

program code of a setting step of setting one or more recognition dictionaries corresponding to the received input form identifying information from a holding means that holds a plurality of kinds of recognition dictionaries by referring to a table managing

a correspondence of the input form identifying information and each of the plurality of kinds of recognition dictionaries;

program code of a second receiving step of receiving from the client a user dictionary and speech information, the user dictionary holding target recognition words and input form identifying information in association with each other; and

program code of a speech recognition step of recognizing the speech information using (i) the target recognition words associated with the input form to which the speech information is input, identified by the received input form identifying information and (ii) one or more recognition dictionaries set in the setting step,

wherein the client inputs a speech recognition result received from the server to the input form to which the speech information is determined to be input by said determining means.

60. In a client-server speech recognition system, wherein the server has holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of input form identifying information and each of the plurality of kinds of recognition dictionaries, a computer readable memory that stores program code for performing speech recognition, comprising:

program code of a display control step of controlling the displaying of a speech input window comprising plural input forms;

program code of a determining step of determining from among the displayed plural input forms an input form to which speech information is input as a target speech;

program code of a first transmission step of transmitting to the server input form identifying information indicating the input form determined when said determining step determines the input form;

program code of a speech receiving step of receiving the speech information inputted by a speech input module;

program code of a second transmission step of transmitting (i) a user dictionary that holds target recognition words and input form identifying information in association with each other and (ii) the speech information to the server;

program code of an inputting step of inputting a speech recognition result received from the server to the input form to which the speech information is determined to be input in said determining step;

program code of a first receiving step of receiving from the client the input form identifying information;

program code of a setting step of setting one or more recognition dictionaries corresponding to the received input form identifying information from said holding means by referring to the table;

program code of a second receiving step of receiving from the client the user dictionary and the speech information;

program code of a speech recognition step of recognizing the speech information using (i) the target recognition words of the user dictionary associated with the input form to which speech is determined in said determining step to have been input that is

identified by the received input form identifying information and (ii) the one or more recognition dictionaries set in the setting step; and

program code of a third transmission step of transmitting a speech recognition result of the speech recognition step to the client.

Allowable Subject Matter

2. Claims 43, 45-48, 51-52, 54, 57-58, and 60 (now amended 1-11) are allowed over prior art of record. The following is an examiner's statement of reasons for allowance: Dragosh et al. (US 6078886) disclose a system and method of operating an automatic speech recognition service using a client-server architecture is used to make ASR services accessible at a client location remote from the location of the main ASR engine. The present invention utilizes client-server communications over a packet network, such as the Internet, where the ASR server receives a grammar from the client, receives information representing speech from the client, performs speech recognition, and returns information based upon the recognized speech to the client (*referring to reference*). Yokota et al. (US 6125206) teach a multi-user pattern data processing system configured for various kinds of patterns, such as characters, to learn efficiently and effectively. The present invention comprises an input arrangement 1 having patterns entered therein from a plurality of users, a dictionary 2 having patterns and attributes of the patterns belonging thereto defined therein, a recognizing arrangement 4 that receives the entered pattern and a group attribute and retrieves from among the patterns entered in the dictionary and having a corresponding group

attribute to feed out the category, and a dictionary editing arrangement 5 for extracting a pattern used in common by a group before editing the pattern, such as entering it in the common dictionary, with the group having the user made to belong thereto. The invention allows the dictionary used to the pattern recognition to learn very efficiently and effectively (*referring to reference*).

Both Dragosh et al. and Yokota et al. fail to specifically disclose the step of transmitting input form identifying information from the client device to the server. The server includes holding means for holding a plurality of kinds of recognition dictionaries, and a table managing a correspondence of the input form identifying information and each of the plurality of kinds of recognition dictionaries; first receiving means for receiving the input form identifying information; setting means for setting one or more recognition dictionaries corresponding to the received input form identifying information from said holding means by referring to the table; and speech recognition means for recognizing the speech information using (i) the target recognition words of the user dictionary associated with the input form to which speech is determined by said determining means to have been input that is identified by the received input form identifying information and (ii) the one or more recognition dictionaries set by the setting means. Furthermore, it would have not been obvious to one of ordinary skill in the art at the time of invention to modify Dragosh and/or Yokota et al. in order to obtain the claimed invention. Therefore, claims 43, 45-48, 51-52, 54, 57-58, and 60 (now amended 1-11) are allowed over prior art of record.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Huyen X. Vo whose telephone number is 571-272-7631. The examiner can normally be reached on M-F, 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on 571-272-7602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HXV

3/31/2006


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